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## NOTICE OF ALLOWANCE AND FEE(S) DUE

32116

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06/20/2008

WOOD, PHILLIPS, KATZ, CLARK & MORTIMER 500 W. MADISON STREET SUITE 3800 CHICAGO, IL 60661

EXAMINER				
LEESER, ERICH A				
ART UNIT	PAPER NUMBER			
1624				

DATE MAILED: 06/20/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,708	12/30/2005	Margaretha Bakker	ABB10010P2080US	4819

TITLE OF INVENTION: 3-SUBSTITUTED 3,4-DIHYDRO-THIENO[2,3-D]PYRIMIDIN-4-ONE DERIVATIVES, PRODUCTION AND USE

THEREOF

I	APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
	nonprovisional	NO	\$1440	\$300	\$0	\$1740	09/22/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

## Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

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(571)-273-2885 or <u>Fax</u>

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications. Note: A certificate of mailing can only be used for domestic mailings of the CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission. 32116 7590 06/20/2008 Certificate of Mailing or Transmission WOOD, PHILLIPS, KATZ, CLARK & MORTIMER I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. 500 W. MADISON STREET **SUITE 3800** CHICAGO, IL 60661 (Depositor's name (Signature (Date APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/539,708 12/30/2005 Margaretha Bakker ABB10010P2080US 4819 TITLE OF INVENTION: 3-SUBSTITUTED 3,4-DIHYDRO-THIENO[2,3-D]PYRIMIDIN-4-ONE DERIVATIVES, PRODUCTION AND USE THEREOF APPLN. TYPE SMALL ENTITY ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE DATE DUE nonprovisional NO \$1440 \$300 \$0 \$1740 09/22/2008 **EXAMINER** ART UNIT CLASS-SUBCLASS LEESER, ERICH A 1624 514-267000 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. or agents OR, alternatively, (2) the name of a single firm (having as a member a ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_\_ (enclose an extra copy of this fo Advance Order - # of Copies \_ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ■ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

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32116 75	590 06/20/2008		EXAMINER		
WOOD, PHILLIPS, KATZ, CLARK & MORTIMER			LEESER, ERICH A		
500 W. MADISON STREET		ART UNIT	PAPER NUMBER		
SUITE 3800 CHICAGO, IL 606	661		1624	0	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 4 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 4 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)		
	10/539,708	BAKKER ET AL.		
Notice of Allowability	Examiner	Art Unit		
	Erich A. Leeser	1624		
The MAILING DATE of this communication appe All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in or other appropriate comming IGHTS. This application is	n this application. If not include unication will be mailed in due	led course. <b>THIS</b>	
1. $\boxtimes$ This communication is responsive to <u>2-12-08</u> .				
2. ☑ The allowed claim(s) is/are <u>1-16,18 and 22</u> .				
<ul> <li>3. Acknowledgment is made of a claim for foreign priority una) All b) Some* c) None of the:</li> <li>1. Certified copies of the priority documents have</li> <li>2. Certified copies of the priority documents have</li> <li>3. Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul>	e been received. e been received in Application	on No	ation from the	
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	MENT of this application.			
<ol> <li>A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give</li> </ol>			NOTICE OF	
5. CORRECTED DRAWINGS ( as "replacement sheets") mus	st be submitted.			
(a) $\prod$ including changes required by the Notice of Draftspers	son's Patent Drawing Revie	w ( PTO-948) attached		
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date				
<ul><li>(b) ☐ including changes required by the attached Examiner' Paper No./Mail Date</li></ul>				
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t			e back) of	
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.				
Attachment(s)	5 - Notice of In	oformal Datant Application		
<ol> <li>Notice of References Cited (PTO-892)</li> <li>D Notice of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>	<u> </u>	nformal Patent Application Summary (PTO-413),		
•	Paper No.	/Mail Date		
<ol> <li>Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date</li> </ol>	7. 🔼 Examiners	Amendment/Comment		
Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. ⊠ Examiner's 9. □ Other	Statement of Reasons for All	owance	
	9. 🔲 Otilei	<u>_</u> ·		
	/James O. Wilson Supervisory Pater Art Unit 1624			

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Art Unit: 1624

ALLOWANCE

This action is in response to Applicant's Remarks and Amended Claims in which

Applicant amended claim 16 and cancelled claims 19-21 and 23-28. Examiner previously

allowed claims 1-5, 18 and 22 in the Office action dated November 8, 2007. Claims 1-16, 18

and 22 are allowed.

Claim Rejections - 35 USC § 112, first paragraph

This rejection is now moot after Applicant's cancellation of claims 19-21 and 23-28.

Claim Rejections - 35 USC § 112, second paragraph

This rejection is now moot after Applicant's amendment of claim 16.

Examiner's Amendment

An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to Applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

The Application has been amended as follows:

Abstract: HAS BEEN AMENDED TO READ AS FOLLOWS:

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Art Unit: 1624

## **ABSTRACT**

3-Substituted 3,4-dihydrothieno[2,3-d]pyrimidin-4-one derivatives, production and use thereof. The invention relates to 3,4-dihydrothieno[2,3-d]pyrimidin-4-one derivatives which are substituted in position 3 by 5-membered heteroaryl which may be fused to an aryl or heteroaryl radical, where the heteroaryl and, if appropriate, the fused aryl or heteroaryl radical may have 1, 2 or 3 substituents selected independently of one another from C<sub>1-5</sub>-alkyl, C<sub>1-5</sub>-alkoxy, C<sub>1-5</sub>-alkylthio, halogen, CN, halo-C<sub>1-5</sub>-alkyl, halo-C<sub>1-5</sub>-alkoxy, hydroxy, -NH<sub>2</sub>, -N(R6)<sub>2</sub>, -NH(R6), aryl, aryloxy, aralkyl, aralkyloxy and heteroaryl, where the substituents aryl, aryloxy, aralkyl, aralkyloxy and heteroaryl may have 1, 2 or 3 substituents selected independently of one another from C<sub>1-5</sub>-alkyl, C<sub>1-5</sub>-alkoxy, C<sub>1-5</sub>-alkylthio, halogen, CN, halo-C<sub>1-5</sub>-alkyl, halo-C<sub>1-5</sub>-alkoxy, hydroxy, -NH<sub>2</sub>, -N(R6)<sub>2</sub> and -NH(R6). The preparation and use of these derivatives, especially for therapeutic purposes, e.g. for the treatment of depressions, are likewise described.

## Reasons for Allowance

The following is an Examiner's statement of reasons for allowance: the elected invention is free of the prior art and the form of the application is acceptable. The closest prior art is Steiner et al., United States Patent No. 6,159,981. The reference teaches 3-substituted pyrido[3',4':4,5]thieno[2,3-D]pyrimidine derivative compounds instead of the 3-substituted 3,4-dihydrothieno[2,3-d]pyrimidin-4-one derivative compounds of the instant application. The difference between the compounds of the reference and the compounds of the instant application is R<sup>2</sup> of the reference must be six-membered rings whereas R3 of the present claims is limited to a five-membered ring. Therefore, the claims are free of prior art.

Any comments considered necessary by Applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Erich A. Leeser whose telephone number is 571-272-9932. The Examiner can normally be reached Monday through Friday from 8:30 to 6:00 EST.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. James O. Wilson can be reached at 571-272-0661. The fax number for the organization where this application is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197. If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Erich A. Leeser

Patent Examiner, Art Unit 1624 United States Patent and Trademark Office 400 Dulany Street, Remsen 5C11 Alexandria, VA 22314-5774

Tel. No.: (571) 272-9932

/James O. Wilson/ Supervisory Patent Examiner, Art Unit 1624 James O. Wilson

Supervisory Primary Examiner, Art Unit 1624 United States Patent and Trademark Office 400 Dulany Street, Remsen 5A11 Alexandria, VA 22314-5774

Tel. No.: (571) 272-0661